IN THE CLAIMS:

1.(currently amended) ~~A~~ The method of claim 96 wherein said exogenous nucleic acid encodes ~~for administering nucleic acid to provide~~ a polypeptide ~~in cells in tissue of interest, comprising:~~

~~treating the tissue with a cGMP-specific, phosphodiesterase-5 (PDE-5) inhibitor compound; and~~

~~subsequently or simultaneously administering exogenous nucleic acid to the tissue, wherein the step of administering is accomplished by administration to a solid cell mass selected from the group consisting of a solid organ and a solid tumor~~.

2-69. (cancelled)

70. (previously presented) The method of claim 1 wherein the tissue is treated with the phosphodiesterase-5 (PDE-5) inhibitor compound sildenafil to increase vascular permeability.

71. (previously presented) The method of claim 1 wherein the phosphodiesterase-5 (PDE-5) inhibitor compound is a bicyclic heterocyclic compound.

72. (previously presented) The method of claim 1 wherein the phosphodiesterase-5 (PDE-5) inhibitor compound is selected from the group consisting of: a pyrazolo[4,3-d] prymidin-7-one, pryazolo[3,4-d] pyrimidin-4-one, quinazolin-4-one, purin-6-one, and pyrido[3,2-d]pyrimidin-4-one.

73. (previously presented) The method of claim 1 wherein the the phosphodiesterase-5 (PDE-5) inhibitor compound is selected from the group consisting of: sildenafil, zaprinast, and T-1032.

74. (previously presented) The method of claim 1 wherein the tissue is treated with a vascular permeability increasing agent distinct from the phosphodiesterase-5 (PDE-5) inhibitor compound.

75. (previously presented) The method of claim 1 wherein a permeability agent in addition to the phosophodiesterase-5 (PDE-5) compound is administered and said permeability agent is selected from the group consisting of: serotonin, bradykinin, platelet-activating factor, prostaglandin E_1, histamine, vascular endothelial growth factor, zona occludens toxin, interleukin-2, plasma kinins, L-N-monomethyl arginine and L-N-nitro-arginine methyl ester.

76. (previously presented) The method of claim 1 wherein the nucleic acid is administered under a calcium ion concentration of about 500 μmol/L or less.

77. (previously presented) The method of claim 1 wherein the tissue is treated with a solution having a calcium ion concentration about 500 μmol/L or less.
78. (currently amended) The method of claim ~~1~~ 92 wherein the nucleic acid is administered by perfusion.
79. (previously presented) The method of claim 78 wherein the perfusate of nucleic acid is recirculated and then readministered through the organ or cell mass.
80. (previously presented) The method of claim 1 wherein the phosphodiesterase-5 (PDE-5) inhibitor compound is perfused through vasculature of the tissue prior to administration of the nucleic acid.
81. (previously presented) The method of claim 1 wherein a low calcium ion concentration solution is perfused through vasculature of the tissue prior to administration of the nucleic acid.
82. (previously presented) The method of claim 1 wherein a fluid having a calcium ion concentration of about 500 μmol/L or less is perfused through vasculature of the tissue.
83. (previously presented) The method of claim 1 wherein the nucleic acid is administered as a viral vector in a solution at a concentration of about 1×10^8 pfu/ml or greater.
84. (currently amended) The method of claim ~~1~~ 92 wherein the exogenous nucleic acid is administered *ex vivo* to a heart.
85. (previously presented) The method of claim 1 wherein the nucleic acid is administered to a solid organ.
86. (previously presented) The method of claim 1 wherein the nucleic acid is administered to cells of an organ selected from the group consisting of: heart, lung, kidney, testes, ovaries, skeletal muscle, kidneys, brain ~~or~~ and spleen.
87. (previously presented) The method of claim 1 wherein the tissue is cardiac tissue.
88. (previously presented) The method of claim 1 wherein the tissue is liver tissue.
89. (previously presented) The method of claim 1 wherein the tissue comprises malignant cells.
90. (previously presented) The method of claim 1 wherein the nucleic acid is administered to a solid tumor.
91. (previously presented) The method of claim 1 wherein the tissue is mammalian.
92. (currently amended) ~~The method of claim 1~~ A method for administering nucleic acid to provide a polypeptide in cells in tissue of interest, comprising:

    treating the tissue with a cGMP-specific, phosphodiesterase-5 (PDE-5) inhibitor compound; and

    subsequently or simultaneously administering exogenous nucleic acid to

the tissue, wherein the step of administering is accomplished by ~~wherein the nucleic acid is administered~~ *ex vivo* administration to a solid cell mass selected from the group consisting of a solid organ and a solid tumor. ~~wherein the nucleic acid is administered~~.

93. (previously presented) The method of claim 1 wherein the nucleic acid is administered *in vivo*.
94. (previously presented) The method of claim 1 wherein the nucleic acid is administered to a human.
95. (previously presented) The method of claim 1 wherein the nucleic acid is administered to an animal selected from the group consisting of: livestock, poultry, ~~or~~ dog, ~~or~~ and cat.
96. (currently amended) A method for delivering nucleic acid to cells in a tissue of interest, comprising:

administering to the tissue a cGMP-specific, phosphodiesterase-5 (PDE-5) inhibitor compound and exogenous nucleic acid, wherein the inhibitor is administered prior to or simultaneously with the nucleic acid, and wherein the exogenous nucleic acid is administered by perfusion through vasculature of the tissue of interest ~~to a solid cell mass selected from the group consisting of a solid organ and a solid tumor~~.

97. (previously presented) The method of claim 1 wherein the phosphodiesterase-5 (PDE-5) inhibitor compound is a pyrazolo[4,3-d] prymidin-7-one.
98. (previously presented) The method of claim 78 wherein the nucleic acid is administered to the tissue via a catheter.
99. (previously presented) The method of claim 96 wherein the nucleic acid is administered to the tissue by perfusion via a catheter.
100. (currently amended) The method of claim ~~1~~ 92 wherein the nucleic acid is administered to the tissue by direct injection to myocardium.
101. (currently amended) The method of claim ~~96~~ 107 wherein the nucleic acid is administered to the tissue by direct injection to myocardium.
102. (previously presented) The method of claim 1 wherein the nucleic acid is administered to the tissue by percutaneous intercoronary delivery.
103. (previously presented) The method of claim 96 wherein the nucleic acid is administered to the tissue by percutaneous intercoronary delivery.
104. (previously presented) The method of claim 78 wherein the perfusion is via the coronary artery.
105. (previously presented) The method of claim 96 wherein the nucleic acid is administered by perfusion of the coronary artery.
106. (currently amended) The method of claim ~~1~~ 92 wherein the nucleic acid is administered to the tissue by direct injection.
107. (Currently amended) ~~The method of claim 96~~ A method for delivering nucleic acid to cells in a tissue of interest, comprising:

administering to the tissue a cGMP-specific, phosphodiesterase-5 (PDE-5) inhibitor compound and exogenous nucleic acid, wherein the inhibitor is administered prior to or simultaneously with the nucleic acid, and wherein

the exogenous nucleic acid is administered ~~wherein the nucleic acid is administered to the tissue~~ by direct injection to a solid cell mass selected from the group consisting of a solid organ and a solid tumor.

108. (previously presented) The method of claim 1 wherein the inhibitor is a tetracyclic cGMP specific PDE-5 inhibitor.

109. (previously presented) The method of claim 96 wherein the inhibitor is a tetracyclic cGMP specific PDE-5 inhibitor.

110. (previously presented) The method of claim 1 wherein the inhibitor is administered orally.

111. (previously presented) The method of claim 96 wherein the inhibitor is administered orally.